

STATUS: Effective

POLICY NUMBER: Waste-0059-NPD

SUBJECT: Use of Waste Tires as an Alternative Fuel Source

AUTHORIZED: Thomas W. Easterly, Commissioner

SUPERSEDES: New

ISSUING OFFICE(S): Office of Land Quality

ORIGINALLY EFFECTIVE: April 15, 2010

RENEWED/REVISED:

Disclaimer: This Nonrule Policy Document (NPD) is being established by the Indiana Department of Environmental Management (IDEM) consistent with its authority under [IC 13-14-1-11.5](#). It is intended solely as guidance and shall be used in conjunction with applicable rules or laws. It does not replace applicable rules and laws, and, if it conflicts with these rules or laws, the rules or laws shall control. Under [IC 13-14-1-11.5](#), this policy will be available for public inspection for at least 45 days prior to presentation to the appropriate state environmental board and may be put into effect by IDEM 30 days afterward. If the nonrule policy is presented to more than one board, it will be effective 30 days after presentation to the last. IDEM also will submit the policy to the Indiana Register for publication

1.0 PURPOSE

This policy provides guidelines on allowable uses of waste tires as an alternative fuel source in light of the Indiana waste rules. The purpose of this policy is to clarify what IDEM solid and hazardous waste rules and policies are applicable if a facility is burning waste tires as an alternative fuel source. The Office of Land Quality (OLQ) received several inquiries regarding use of waste tires as an alternative fuel source and whether this activity would require a solid waste incinerator permit from this office under the rules for solid waste processing facilities ([329 IAC 11](#)). The following IDEM waste rules may be applicable if waste tires are used as an alternative fuel source:

- A. [329 IAC 11](#); Solid Waste Processing Facilities
- B. [329 IAC 15](#); Waste Tire Management
- C. [329 IAC 3.1](#); Hazardous Waste Management Permit Program and Related Hazardous Waste Management

Please note that this policy only discusses OLQ requirements as they pertain to burning and storing tires. This policy does not discuss or affect other permitting requirements that the facility may be subject to when burning tires. Such a facility must comply with all other applicable laws, including, but not necessarily limited to, those implemented by the Office of Air Quality (OAQ), the Office of Water Quality, or the State Fire Marshal.

2.0 SCOPE

This policy applies to industrial, commercial, governmental, institutional, or manufacturing facilities that burn waste tires as an alternative fuel source in lieu of, or as a supplement to, coal, oil, or other fossil fuel sources.

3.0 SUMMARY

Under Indiana's rules for solid waste processing facilities ([329 IAC 11](#)), any facility that is incinerating waste, including waste tires, must obtain a solid waste incinerator permit. In addition, if waste tires are being processed, a tire processing facility must comply with the waste tire management rule ([329 IAC 15](#)). This policy establishes standards allowing the use of waste tires as an alternative fuel source without a solid waste incinerator permit if the tires are used as a supplemental fuel for traditional fossil fuels. This policy is established under the authority of the commissioner of IDEM to exclude from the requirements of [329 IAC 11](#) certain solid waste management activities or legitimate uses of solid waste that are determined to not pose a threat to public health or the environment, as contained in [329 IAC 11-3-1\(15\)](#) (proposed to be renumbered as [329 IAC 11-3-1\(13\)](#)).

Under Indiana's rules for air quality ([326 IAC](#)), any source that is planning to use tire derived fuel or incinerating tires will usually need some level of air permitting approval. The level of permitting is determined by the specifics of each situation. Thresholds for permitting can be found at [326 IAC 2](#). For more information and assistance, please contact IDEM, OAQ, Permits Branch at (317) 233-0178.

4.0 DEFINITIONS

4.1. "Alternative fuel" - Fuel that has been derived from waste and approved for use as a supplemental fuel in a combustion unit such as a boiler or industrial furnace that would otherwise burn fossil fuels.

4.2. "Boiler" - An enclosed device that uses controlled flame combustion to recover and export energy in the form of steam, heated fluid, or heated gases.

4.3. "British Thermal Unit (BTU) or (Btu)" - The amount of heat energy needed to raise the temperature of one pound of water by one degree Fahrenheit (F). This is the standard measurement used to state the amount of energy that a fuel has as well as the amount of output of any heat generating device.

4.4. "Fossil fuels" - A hydrocarbon deposit, such as petroleum, coal, or natural gas, derived from living matter of a previous geologic time and used for fuel.

4.5. "Incinerator" - As defined under solid waste processing rule, [329 IAC 11-2-16](#), an engineered apparatus designed for the burning of solid waste under the effect of controls of temperature, retention time, air, and other combustion factors*.

*Note: U.S. EPA and IDEM have different definitions and subclasses of incinerators in various air quality rules. Please read the definition in each rule. Also be aware that U.S. EPA's Commercial and Industrial Solid Waste Incineration (CISWI) Definitions Rule has been vacated and remanded.

4.6. "Industrial furnace" - A unit that is an integral part of a manufacturing process and uses thermal treatment to recover materials or energy. Examples of industrial furnaces are cement kilns, lime kilns, aggregate kilns, coke ovens, blast furnaces, smelting, melting, and refining furnaces.

4.7. "Tire derived fuel (TDF)" - Fuel that is derived from waste tires, including altered tires, shredded or whole tires, and used as supplemental fuel in boilers, or industrial furnaces that otherwise burn fossil fuels.

4.8. "Waste tires" - As defined in [IC 13-11-2-250](#), a tire that is not suitable for the tire's original purpose. A waste tire can be a whole waste tire or shredded or altered waste tire.

4.9. "Waste tire processing operation" - As defined in [IC 13-11-2-250.5](#), an operation that processes waste tires by cutting, shredding, or grinding. The term does not include a retail operation that cuts or shreds waste tires generated by the retail operation.

4.10. "Waste tire storage site" - As defined in [IC 13-11-2-251](#), a site where at least:

- A. 1,000 waste tires are accumulated outdoors or within a structure that is not completely enclosed; or
- B. 2,000 waste tires are accumulated indoors within a completely enclosed structure.

4.11. "Whole waste tire" – As defined in [329 IAC 15-2-15](#), a waste tire that is not an altered waste tire or a material derived from waste tires.

5.0 ROLES

5.1. OLQ is responsible for oversight of solid waste and hazardous waste management activities, permitting and compliance.

5.2. The permits branch in OLQ is responsible for reviewing applications and recommending appropriate action on permit applications, including decisions under [329 IAC 11-3-1](#)(15).

5.3. OAQ is responsible for assuring that ambient air quality in Indiana meets the National Ambient Air Quality Standards, providing timely, quality air permits and verifying compliance with applicable state and federal air pollution laws and regulations.

5.4. The permits branch in OAQ is responsible for providing timely, quality air permits.

6.0 POLICY

6.1. Tire derived fuel (TDF) can occur in two forms, either as shredded or altered waste tire material, or as whole waste tires. Regardless of the form, a facility proposing to utilize TDF in Indiana will have to comply with all applicable air quality rules and most likely will need to have its air quality permit modified or may be required to obtain a new permit, if previously exempt, or obtain a higher level permit if there is an increase in emissions to allow for use of TDF as a fuel. A facility that burns TDF is also a solid waste processing facility under [329 IAC 11](#) and would require a solid waste processing facility permit. However, given the existence of waste tire storage and

processing rules to regulate management of waste tires prior to burning and air quality rules to assure the burning of waste tires does not cause harmful emissions, requiring a solid waste processing permit for such facilities would be overly burdensome for no real environmental benefit.

6.2. A facility that burns waste tires for fuel constituting up to 30% by weight of total fuel feed at any time is best addressed under [329 IAC 11-3-1](#)(15) (proposed to be renumbered as [329 IAC 11-3-1](#)(13)) which allows the commissioner to exclude "Solid waste management activities or legitimate uses of solid waste determined by the commissioner to not pose a threat to public health and the environment" from the solid waste processing requirements of [329 IAC 11](#). Granting this exclusion on a case-by-case basis allows the OLQ to be aware of where TDF is being used without the OLQ imposing a significant regulatory deterrent to the use of TDF.

6.3. OLQ staff researched other states and federal regulations and guidelines regarding various criteria or allowable amount of alternative fuel substitution considered by other states. Staff concluded that TDF substitution of 30% by weight of total fuel feed or a minimum Btu value of TDF of 5,000 Btu/lb was used by other states most often. Since tires represent higher than 5,000 Btu/lb heat value, OLQ recommends to limit TDF substitution to 30% by weight of total fuel feed. If the facility intends to supplement its fossil fuel with more than 30% of TDF, the facility must obtain a solid waste processing facility permit as required under [329 IAC 11](#).

6.4. In order to receive the above-mentioned exclusion, a facility that intends to burn waste tires must submit to OLQ's Permits Branch, 100 N. Senate Ave., Indianapolis, IN 46204-2251 a written request for a legitimate use exclusion from the solid waste processing requirements of [329 IAC 11](#). The request for exclusion must detail the proposed volume of waste tires to be used in a calendar year, the ratio of TDF to total fuel feed and how the facility will handle, store and process the waste tires. Please be reminded that TDF must be stored in compliance with the Indiana Fire Code at [675 IAC 22](#).

6.5. Another situation is use of TDF at facilities that are regulated under the hazardous waste management rules ([329 IAC 3.1](#)). If the waste tires are being burned in a boiler or industrial furnace in the same manner as the hazardous waste received at the facility, then such activity would be exempt from the requirement to have a solid waste processing permit under [329 IAC 11-3-2](#)(d) and does not need to apply for the legitimate use exclusion under [329 IAC 11-3-1](#)(15). Processing and storage of waste tires, both at the facility and before arrival at the facility, must comply with waste tire management rules ([329 IAC 15](#)).

6.6. Relationship to waste tire registrations regulated under [329 IAC 15](#):

- A. Storage of waste tires including whole and shredded or altered waste tires at a facility utilizing tires for fuel is subject to a waste tire storage registration under [329 IAC 15](#). A facility that stores waste tires including whole and shredded or altered waste tires must have a valid registration from IDEM if 1,000 or more waste tires are stored outside or 2,000 or more waste tires are stored inside. Waste tires stored for less than 30 days in a vehicle that is properly licensed, that is capable of legally transporting waste tires and in which waste tires are completely enclosed do not require a waste tire storage registration.
- B. If the waste tires are shredded at the TDF facility, then the facility must obtain a tire processor registration certificate from IDEM as required under [329 IAC 15-3-1](#).
- C. The TDF producer must have documentation that proves an authorized end-user exists. Speculative accumulation of TDF is not permitted. Any TDF at a processing or storage, or both, facility will not be counted towards facility limits as required under the waste tire management rule ([329 IAC 15](#)). If that documentation cannot be provided or the end-user discontinues accepting TDF, the tires or shreds, or both, will be counted towards the limits of the waste tire management rule. For more information and assistance on waste tire registration please contact IDEM, OLQ, Permits Branch at (317) 232-0066.

7.0 REFERENCES

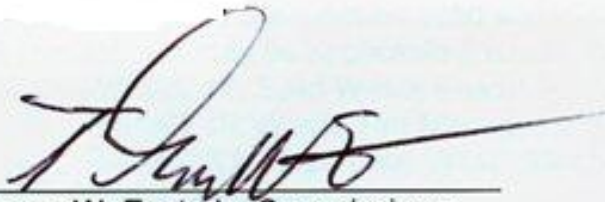
7.1. Indiana Administrative Code:

- A. [329 IAC 11](#), Solid Waste Processing Facilities; rules can be found at:
<http://www.in.gov/legislative/iac/T03290/A00110.PDF>
- B. [329 IAC 15](#), Waste Tire Management; rules can be found at:
<http://www.in.gov/legislative/iac/T03290/A00150.PDF>
- C. [329 IAC 3.1](#), Hazardous Waste Management Permit Program and Related Hazardous Waste Management; rules can be found at:
<http://www.in.gov/legislative/iac/T03290/A00031.PDF>
- D. 326 IAC, Air Pollution Control Board; rules can be found at:
http://www.in.gov/legislative/iac/iact_title?iact=326
- E. [675 IAC 22](#), Indiana Fire Code

7.2. Indiana Code:

A. [IC 13-11-2](#), Definitions

8.0 SIGNATURES



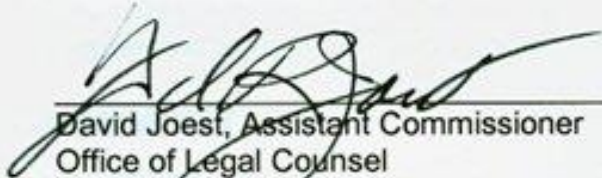
Thomas W. Easterly, Commissioner
Indiana Department of Environmental Management

10/21/2009
Date



Bruce H. Palin, Assistant Commissioner
Office of Land Quality


10/11/09
Date



David Joest, Assistant Commissioner
Office of Legal Counsel

10/02/09
Date

This policy is consistent with Agency requirements.



Quality Assurance Program, Planning and Assessment
Indiana Department of Environmental Management

10/12/09
Date

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